W5YI

Nation's Oldest Ham Radio Newsletter

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

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★ *In This Issue* ★

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New Repeater and Packet Radio Rules Proposed

The FCC has adopted its long awaited *Notice of Proposed Rulemaking* which looks toward establishing a new compliance policy for amateur stations participating in automatic message forwarding. They also have proposed rules which hold repeater control operators harmless for any prohibitive communications instantly retransmitted through the repeater.

While only the originators of communications are to be held accountable for content violations flowing through a repeater, the FCC wants to hold both the licensee of a packet radio station originating a message and the licensee of the first forwarding station primarily accountable for transmitting - or retransmitting - prohibited packet radio communications. The difference obviously is that packet messages can be reviewed, while repeater traffic is instantaneous.

"The first forwarding station is the station that receives a communication directly from the originating station and inputs it into the system. ...Under this approach, the licensees of stations that only retransmit messages within a high speed message forwarding system would not be held accountable for communications they forward or their stations retransmit unwittingly," the FCC said in a March 22nd news release.

Under the rules now in effect, each amateur station is fully responsible for assuring that the contents of every transmission from his or her station complies with the rules. This requirement was not a burden when amateurs sent messages manually. With the availability of digital technology, however, many licensees have tied their stations together into high volume, high speed automatic message forwarding systems.

Amateur operators frequently refer to these systems as automated packet radio message forwarding systems or packet networks, linked repeater networks, digipeaters, and packet radio bulletin board systems (PBBS). The stations are configured so that each message is instantly retransmitted to its destination through a series of stations.

Because message screening is difficult with these automatic systems and because screening at each station in these systems greatly diminishes the advantage of high speed, the Commission proposed holding answerable only the originating station and the first station in a high speed message forwarding system.

Currently, the rules (§97.105a) hold all control operators responsible for the content of messages flowing from and through their stations including packet radio messages which are received and retransmitted automatically through a process commonly referred to as digipeating. A digipeater is a packet-radio station that selectively receives and regenerates (or "repeats") data communications on "down the line" to a destination. Many individual amateur radio packet station operate as digipeaters.

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Background on the proceeding

Early in 1991, several amateurs were cited by the Engineer-in-Charge (EIC) of the FCC's Norfolk, VA, office for unknowingly and automatically retransmitting an anti-war packet message supposedly originated by another politically active ham. The message urged amateurs to vote against the Persian Gulf war by telephoning "900-44-NO WAR" to tell President Bush "NO WAR." It automatically wound its way through several packet stations before being killed.

The Commission believed that the message was a prohibited communication in that it advanced the business interests of "*The Coalition to Stop U.S. Intervention in the Middle East.*" Furthermore, "900" phone calls almost always generate revenue which presented the likelihood that this also might be a fund raising scheme being promoted on the ham bands.

The FCC action faulting the amateurs for automatically retransmitting - or digipeating - questionable messages they did not originate caused immediate havoc in the ham community. Part 97 does not distinguish between the responsibilities of the station originating and those only forwarding or repeating prohibitive communications.

Basically this leaves no alternative but for the control operator of every forwarding station in a system to delay the retransmission of each message until after it can be manually reviewed. Many said the amateur high-speed packet network would have to shut down since there was no way thousands of messages passing through a mail switch could be reviewed by a human control operator one by one.

Eventually charges against the amateurs who unintentionally forwarded the "900-44-NO-WAR" message were dropped when they agreed to screen all communications flowing from their stations for compliance with the rules. One of those amateurs cited was Richard A. White, licensee of amateur station KA3T. He did not want the violation to show up on his FCC record and retained Washington, DC lawyer: John J. McVeigh (who is also KD4VS) to get all references to it removed. McVeigh demanded that the FCC completely withdraw the violation notice and all related correspondence from Richard White's files.

The Commission told McVeigh that because his client had taken the necessary corrective action (agreed to screen all messages going through his station), nothing in his record would be prejudicial to KA3T in any future regulatory proceeding. The FCC declined, however, to remove all correspondence concerning the incident from White's record and said it did not consider his file "contaminated." McVeigh told us that they probably will appeal that decision.

Petitions filed

After the unfortunate "900-44-NO-WAR" packet forwarding incident, several petitions were received by the FCC from the amateur community requesting that the Commission change its compliance policy for stations participating in message forwarding and voice repeater systems.

The petitioners basically believed that only the licensee of the station originating a packet message or transmitting through a voice or amateur television repeater to be held accountable for the transmission of violative communications. Under this approach, amateur stations that only retransmit messages would have no responsibility. The FCC combined all of these petitions and initiated a proceeding to ascertain what special rules, if any, should be provided for automatic message forwarding systems - and transmissions through repeaters.

Notice of Proposed Rulemaking issued

In the NPRM released March 29th, the FCC agrees with the petitioners that it is impractical to apply the current policy regarding licensee accountability to all stations in message forwarding systems. "Requiring a message-by-message screening procedure greatly reduces the efficiency of these systems," the FCC said. "On the other hand, like the petitioners, we are concerned about the potential for misuse of these systems.

"While we agree that the originating station licensee and control operator should be held responsible for violative communications they originate, we are not convinced that only holding the originating station licensee responsible would be sufficient to prevent misuse of message forwarding systems. It appears that the control operator of the station that first forwards communications from the originating station on behalf of the system is also in a good position to determine if those communications violate the rules and take corrective action where necessary.

"Therefore, in addition to holding the originating station licensee and control station operator accountable, we propose to add new Section §97.217 to the rules to also hold the control operator of the first forwarding station accountable for communications transmitted within a message forwarding system."

The Commission believes that the first forwarding station could establish guidelines for messages that the station will accept for introduction into the packet network. For example, the control operator of the first forwarding station could personally review each message prior to allowing its introduction into the

system or could accept the risk of retransmitting a message from an originating station whose licensee the control operator deems trustworthy without checking it. It is apparent that the Commission wants SYSOPS (system operators) of packet radio bulletin boards to assume responsibilty for all messages they release into the network.

The FCC said "We believe that this approach would allow high speed message forwarding systems to operate as efficiently as they are intended and still provide the safeguards necessary to prevent system misuse. Under this approach, the only delay occurs during screening at the first forwarding station. Thereafter, all other stations can retransmit the message with little or no delay. Because of the standardized format of the AX.25 frames, for example, both the originating and the first forwarding station can be readily identified."

AX.25 is the *Amateur Packet-Radio Link Layer Protocol* ...the electronic data standard that all ham stations must use when transmitting third party packet messages under automatic control above 50 MHz. See Part §97.109(d).

While all amateurs we have talked to believe the new FCC position is a giant step in the right direction, many still feel that only message originators should be held responsible for the substance of their communications. They believe that all operations once the traffic is released by the originator "...is actually part of the delivery system." One amateur put it this way, "...it is ridiculous to hold the post office responsible for any questionable letters it may carry."

Another widespread opinion seems be that many packet bulletin board SYSOP's will have a monumental job keeping up with the messages their host station dumps into the network. And what happens if an amateur who is not a PBBS merely has his digipeating packet radio station turned on to extend the network and another amateur chooses to specifically route messages through his station?

The FCC emphasized that although control operators of forwarding stations other than the first forwarding station would no longer have to screen each message, they would be responsible for discontinuing communications that violate the rules once they become aware of their presence.

The FCC also intends to add a new definition to Section §97.3 of the Part 97 rules to make clear the difference between a repeater and a message forwarding system ...and to reflect the practical meaning that "repeater" appears to have in the amateur service. That is a station that uses different channels to receive and instantly retransmit the voice or television transmissions of another station.

The FCC proposes to change Part 97 of Title 47 of the Code of Federal Regulations as follows:

§97.3(a) Definitions.
(28) ***Message forwarding system.*** A group of amateur stations participating in a voluntary, cooperative, interactive arrangement where communications are sent from the control operator of an originating station to the control operator of one or more destination stations by one or more forwarding stations.

(36) ***Repeater.*** An amateur station that instantaneously retransmits on a different channel the angle-modulated phone or image emission transmission of another amateur station. *[phase modulation (PM) and frequency modulation (FM) are two particular forms of angle modulation.]*

§97.109 Station control.
(c) No station may be automatically controlled while transmitting third party communications, except a station participating as a forwarding station in a message forwarding system.

§97.205 Repeater station.
(g) The control operator of a repeater is not accountable for violative communications that the repeater retransmits inadvertently.

§97.217 Message forwarding system.
(a) Any amateur station may participate in a message forwarding system, subject to the privileges of the class of operator license held.

(b) The control operator of the station originating a message and the control operator of the first station retransmitting that message are accountable for violative communications that are transmitted in a message forwarding system. The control operators of other stations inadvertently retransmitting violative communications in a message forwarding system are not accountable for the violative communications.

The Commission has established a public comment deadline of July 1, 1993, on the Notice of Proposed Rulemaking; with reply comments due on or before August 1, 1993.

To file formally in this proceeding, you must file an original and five copies of all comments, and reply comments. To file informally, you must file an original and one copy of your comments provided only that the Docket No. 93-85 is specified in the heading.

You should send comments and reply comments to: Office of the Secretary, Federal Communications Commission, Washington, DC 20554.

NPRM TEXT RELEASED ON 219-220 MHz ACCESS

As mentioned in our last newsletter, the FCC issued a news release on March 5th stating that it would adopt a *Notice of Proposed Rulemaking* to "...provide a secondary allocation for the Amateur Service in the 219 to 220 MHz band to be used for amateur auxiliary station (point-to-point) packet backbone and other amateur point-to-point fixed communications."

We have now received the text of that NPRM which runs to some 17 single-spaced pages. Here is a capsule version:

The NPRM is in response to a *Petition for Rulemaking* filed by the American Radio Relay League, RM-7747, seeking access to 216-220 MHz by amateur wideband packet networks. The spectrum is needed because the 222-225 MHz band is very congested in many areas and because amateurs were planning to use the 220-222 MHz band for a new regional and/or nationwide backbone packet network system before the band was reallocated. ARRL points out that the planned network also could be used for emergency preparedness and national defense communications.

ARRL believes that spectrum in the 220 MHz range is uniquely suited for the relatively long packet links needed to efficiently construct a backbone system and that no reasonable spectrum alternatives exist for this type of network.

The League also believes that interference by amateurs to the primary services using this and adjacent bands can be prevented through power limitations and careful attention to geographic and frequency separation. The League also suggests that some form of coordination be required.

To assist and encourage amateur radio operators in these continuing efforts, the FCC is proposing to allocate on a secondary basis, the 219-220 MHz band for amateur intercity wideband packet radio networks and other point-to-point fixed operations. This will (a) relieve congestion that exists in the 222-225 MHz band, (b) encourage the development and implementation of a packet network that can be used for emergency and national defense communications purposes, (c) facilitate connection of local packet node to form such a regional or nationwide network and (d) provide spectrum for exploration of new technology.

The FCC concluded that there is a specific need for a limited amount of additional spectrum for wideband packet backbone networks and that the 222-225 MHz band is significantly congested. It is not feasible to allow the amateur use of the entire 216-220 MHz band due to primary use by television broadcasting, maritime telecommunications and the new Interactive Video and Data Service (IVDS).

"We believe that amateurs could, however, use the 219-220 MHz segment on a secondary basis without causing interference to other services if operations are properly engineered and appropriate regulatory safeguards are applied. We believe this additional one megahertz, which can provide ten 100 kHz channels, would adequately meet the current and immediate future packet backbone needs of the amateur service that cannot be accommodated on other amateur spectrum. We also believe that amateurs generally have the expertise to design their packet network systems to operate in the 219-220 MHz band so as to avoid interference to other services and to resolve any interference that may inadvertently occur."

"...we are proposing to allocate the 219-220 MHz segment to the amateur service on a secondary basis. Amateur use of these frequencies would be limited to wideband auxiliary packet networks and other point-to-point fixed services. ...Operation of amateur services in the 219-220 MHz band on a secondary basis will necessitate careful attention to the potential for interference to primary services and to other secondary services."

"ARRL recommends that novice class amateurs be limited to 25 watts PEP and that all other classes of amateur licensees be limited to 50 watts PEP. ARRL claims that a co-channel separation distance of 70 km is needed to protect AMTS (maritime) receivers in a typical case and 120 km in a worst case scenario. ...We believe the power limits suggested by ARRL for the novice and all other classes of amateur operator are appropriate and reasonable. ...We also note that §97.313(a) of our rules already limits amateurs to the minimum transmitter power necessary to accomplish the desired communications."

The Commission said that mandatory coordination of amateur service licensees by a non-government entity generally is not permissible under the Communications Act. Instead the FCC elected to use a notification procedure. "...amateurs will be required to notify the appropriate AMTS (maritime) licensee of any amateur station that would be within 240 km (150 miles) of an AMTS station. In addition, we will require amateurs to obtain written approval from the appropriate AMTS licensee before operating within 80 km (50 miles) of an AMTS station."

"We recommend that the local amateur volunteer coordinator that already addresses operations in the 222-225 MHz band consider also coordinating amateur secondary operations in the 219-220 Mhz band. We recognize coordinating these operations would require considering non-amateur primary and

secondary users in and adjacent to the 219-220 MHz band, but believe the same coordination principles, based on radiated power, distance, and type of signal modulation, are applicable."

"Amateur wideband intercity packet radio services are classified as auxiliary stations under our rules. Section §97.201(a) limits auxiliary stations to amateurs holding technician, general, advanced and extra class licenses." The FCC requested comment on whether the operation of auxiliary stations in the 219-220 MHz band should be available to all amateur operators, including novice class amateurs."

The FCC noted that a maximum rate of 56 kilobauds and a maximum bandwidth of 100 kHz is provided by the rules. "...as technology progresses, the rules may become unnecessarily restrictive, particularly with regard to the permissible baud rate. We request that comments specifically address whether each of these limitations should be applied to the 219-220 MHz band, or whether they should be amended for this band."

The new proposed rules:

§97.303 Frequency sharing requirements.

(r) In the 1.25 m band:

(1) No amateur station transmitting in the 219-220 MHz segment shall cause harmful interference to, nor is protected from interference due to operation of: (1) Automated Maritime Communications Systems, (2) broadcast television channels 11 and 13, (3) Interactive Video Distribution Service, (4) Land Mobile Services, or (5) any other service with a primary allocation in or adjacent to the band.

(2) No amateur station may transmit in the 219-220 MHz segment from a location that is within 80 km (50 miles) of an Automated Maritime Telecommunications System Coast Station unless the amateur licensee obtains written approval from that Automated Maritime Telecommunications System licensee. No amateur station may transmit in the 219-220 MHz segment from a location that is between 80 and 240 km (50 and 150 miles) of an Automated Maritime Telecommunications System Coast Station unless the amateur licensee notifies the AMTS licensee, in writing, of the amateur's intended operation at least 14 days before commencing transmissions."

§97.313 Transmitter power standards.

(h) No station may transmit with a transmitter power exceeding 50 W PEP on the 219-220 MHz segment of the 1.25 m band.

Interested parties may file comments on or before June 15, 1993, replies by before July 15, 1993.

HAM RADIO TO ORBIT ON STS-56 SPACE SHUTTLE

NASA has announced that Space Shuttle Discovery with the STS-56/ATLAS 2 payload will be the next mission to fly with launch scheduled for April 7, 1993 at 1:32 a.m. EDT (5:32 UTC). Space Shuttle Columbia and the STS-55/Spacelab D-2 payload, which experienced a launch scrub due to an engine shutdown on March 22, has been assigned a new target launch date of no earlier than April 24.

The decision for STS-56 to be the next mission flown came after the main engine team finished analyzing the purge valve which caused the STS-55 launch scrub. The team's investigation concluded that the valve from the number 3 main engine failed to operate properly because of contamination that had been in the valve since it was manufactured.

As part of the effort to have Columbia STS-55 ready at the earliest possible date, all three main engines are being removed and will be replaced with ones originally scheduled for use during the STS-57 mission with Space Shuttle Endeavour. The STS-57 mission has now been rescheduled for late May. All three missions, STS-56, 55 and 57 include extensive Amateur Radio operations.

The primary STS-56 payload, the *ATmospheric Laboratory for Applications and Sciences* (ATLAS 2), will investigate the sun's energy output and the Earth's middle-atmosphere chemical makeup and how these factors affect levels of Earth's ozone, which prevents much of the sun's harmful ultraviolet radiation from reaching the Earth's surface.

All members of the 8-day (although it could be extended another day) STS-56 crew are licensed ham radio operators. The rare night launch from the Kennedy Space Center will place the space shuttle Discovery in a 57 degree (high inclination) orbit.

STS-56 Crew Biographies

Kenneth D. Cameron, KB5AWP, 43, Col., USMC, is Commander of the second Atmospheric Laboratory for Applications and Science (ATLAS) mission. Selected to be an astronaut in 1984, Cameron, from Cleveland, Ohio, is making his second Shuttle flight. KB5AWP served as Pilot on Atlantis' STS-37 mission in April 1991. He holds an MS in aeronatutics from the Massachusetts Institute of Technology.

Stephen S. Oswald, KB5YSR, 41, the Pilot of STS-56, hails from Bellingham, Wash. He made his first flight as the Pilot aboard Discovery on STS-42 in January 1992, an international microgravity laboratory mission. He is a 1973 graduate of the U.S. Naval Academy and the Naval Test Pilot School.

Michael Foale, Ph.D., KB5UAC, 36, will serve as Mission Specialist 1 (MS1), making his second space flight. He is from Cambridge, England, and holds a doctorate in laboratory astrophysics from Cambridge University. He made his first space flight on STS-45, the initial ATLAS flight.

Kenneth D. Cockrell, KB5UAH, 42, will serve as Mission Specialist 2 (MS2) and will be making his first space flight. Cockrell considers Austin, Texas, his hometown. He holds a mechanical engineering degree from University of Texas and a master of science in aeronautical systems from the University of West Florida.

Ellen Ochoa, Ph.D., KB5TZZ, 34, of La Mesa, Calif., will serve as Mission Specialist 3 (MS3) on STS-56. Selected as an astronaut in 1990, Ochoa will be making her first space flight. Her doctorate is in electrical engineering from Stanford University.

STS-56 SAREX details:

STS-56 will carry SAREX configuration "D." Configuration D includes 2-meter FM voice, packet radio, SSTV and 70-cm ATV (receive only). The primary voice callsign for this mission will be KB5AWP. Since this is a high inclination orbit, many direct school contacts are also planned.

All SAREX operations are split-frequency. One frequency is used for "downlink" (the astronauts transmit to Earth stations) and a separate frequency is used for the "uplink" (Earth stations transmit to the astronauts.

For all operations, Earth stations should listen to the downlink frequency and transmit only when the Shuttle is in range and the astronauts are on the air. Listen for any instructions from the astronauts as to specific uplink frequencies in use during the current pass. In addition, listen to the uplink frequencies before transmitting to avoid interference to other users.

Modes:	FM Voice, Prime callsign KB5AWP	
	Packet Radio, Callsign W5RRR-1	
	2-way SSTV, Callsign W5RRR/S	
	ATV Uplink (prescheduled)	
Frequencies:	All operations in split mode. Do NOT transmit on the downlink frequency.	
Voice Freqs:	Downlink: 145.55 MHz	
(Worldwide)	Uplinks: 144.91, 93, 95, 97 & 99 MHz	
(Europe only)	144.70, 75 & 80 MHz	

Note: the crew will not favor any specific uplink frequency, so your ability to work the crew will be the "luck of the draw"

Packet Freqs:	Downlink:	145.55 MHz
	Uplink:	144.49 MHz

QSL Info: Send your QSL or Listeners Report to:
STS-56 QSL, c/o Vienna Wireless Society, P.O. Box 418, Vienna, VA 22183

Include a self addressed stamped envelope. Non-U.S. stations should include the appropriate number of IRCs with your QSL or 50¢ U.S. stamp on the envelope. Report should include callsign, whether worked/heard, date, UTC time, mode, frequency, and QSO number for packet connects. Information about orbital elements, contact times, frequencies and crew operating schedules will be made available during the mission by these agencies and by amateur radio clubs at some other NASA centers.

Info: **Goddard Amateur Radio Club,** WA3NAN, Greenbelt, Maryland - SAREX Bulletins and Shuttle Retransmissions on 3860, 7185, 14295 21395, 28,650 KHz (SSB) & 147.45 MHz (FM)
Johnson Space Center ARC, W5RRR, Houston, TX - SAREX Bulletins on 7225, 14280, 21395, 28650 KHz, (SSB) & 146.64 MHz (FM)
ARRL Amateur Radio Station, W1AW, Newington, CT - SAREX Bulletins on 3990, 7290, 14290, 18160, 21390, 28590 KHz (SSB) & 147.555 MHz (FM)
Also, bulletins will be available on Internet, via AMSAT ANS, Compuserve, and your local PBSS.

School Group Participation:
18 school groups will participate in SAREX with pre-scheduled direct contacts. These include 13 in the U.S., 2 in England, and one in Portugal, South Africa and Australia.

The *Shuttle Amateur Radio Experiment-II* (SAREX-II) provides public participation in the space program, supports educational initiatives and demonstrates the effectiveness of making contact between the Space Shuttle and amateur "ham" radio stations on the ground.

Operating times for school contacts are planned into the crew's activities. The school contacts generate interest in science as students talk directly with the astronauts. There will be voice contacts with the general ham community as time permits. Shortwave listeners worldwide also may listen in. When the crew is not available, SAREX-II will be in an automated digital response mode.

SAREX is a joint effort of NASA, the American Radio Relay League (ARRL), the Amateur Radio Satellite Corp. (AMSAT), and the Johnson Space Center's Amateur Radio Club (W5RRR).

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FEBRUARY VE PROGRAM STATISTICS

February	1991	1992	1993
No. VEC's	*18	*18	*18
Testing Sessions	469	814	723
VEC	1991	1992	1993
ARRL	33.1%	48.5%	50.6%
W5YI	43.5	34.3	36.0
CAVEC	4.9	4.2	3.2
GtLakes	4.3	3.9	2.4
WCARS	3.2	3.1	2.2
Others (13)	11.0	6.0	5.6
Year-to-Date Sessions	850	1523	1404
Elements Administ.	8076	17841	14366
VEC	1991	1992	1993
ARRL	35.1%	52.9%	51.4%
W5YI	35.3	27.2	30.3
CAVEC	5.7	4.3	3.1
WCARS	3.2	3.5	3.1
GtLakes	4.4	3.0	2.3
Others (13)	16.3	9.1	9.8
Year-to-Date Elements	13914	31491	25201
Applicants Tested	4995	10481	8427
VEC	1991	1992	1993
ARRL	33.8%	52.8%	50.3%
W5YI	36.4	28.2	31.5
WCARS	3.3	2.1	3.2
CAVEC	5.0	4.0	2.9
GtLakes	5.2	3.0	1.4
Others (13)	16.3	9.9	10.7
Year-to-Date Tested	8609	18427	14859

February	1991	1992	1993
Pass Rate - All	63.1%	67.6%	65.9%
Applicants/Session	10.7	12.9	11.7
Elements/Applicant	1.6	1.7	1.7
Sessions Per VEC	26.1	45.2	40.2

Administrative Errors by VE's/VEC's

February	1991	1992	1993
Defect. Applications	0.7%	0.3%	0.2%
Late Filed Sessions	1.7%	1.2%	2.6%
Defective Reports	0.0%	0.1%	0.1%

Note: The initial surge by newcomers to obtain No-Code Technician ham tickets is over. During the first two months of 1993 there was about 20% less testing (at 10% fewer exam sessions) than in 1992. The good news is that the number of applicants taking ham tests is still double that of before "code-free" hamming.

[Source: Personal Radio Branch/FCC; Washington, D.C.]

FEBRUARY AMATEUR LICENSING STATISTICS

January	1990	1991	1992	1993
New Amateurs:				
New Novices	1679	1819	1261	764
New Tech's	219	307	2765	3042
Total New:	1941	2162	4092	3880
Upgrading:				
Novices	1134	2060	888	513
Technicians	440	670	*635	*670
Generals	320	400	417	418
Advanced	230	275	299	268
Total:	2077	2133	3405	1869
Renewals:				
Total Renew:	155	69	120	190
Novices	34	6	62	82
Purged:				
Total Dropped:	798	11	33	33
Novices	360	3	8	1
Census:				
Indiv. Oper.	463127	504360	551198	596225
Change/Year	+16675	+41233	+46838	+45027

Individual Operators by Class: (and % of total)

Extra	Advan.	General	Technic.	Novice	Total:
February 1990					
49648	100738	115678	113699	83364	463127
10.7%	21.8%	25.0%	24.5%	18.0%	100.0%
February 1991					
54246	105628	120241	129386	94859	504360
10.8%	20.9%	23.8%	25.7%	18.8%	100.0%
February 1992					
58146	108059	123001	164535	97457	551198
10.6%	19.6%	22.3%	29.9%	17.6%	100.0%
February 1993					
61930	110313	125805	198206	99971	596225
10.4%	18.5%	21.1%	33.2%	16.8%	100.0%

Club/ RACES & Military:	(1990)	(1991)	(1992)	(1993)
	2264	2450	2429	2431
Total Active:	**465577**	**506789**	**553629**	**598656**
% Increase	+3.8%	+8.9%	+9.3%	+8.1%

(* = Does not include Technicians upgrading to Tech Plus)

NUMBER OF AMATEURS BY CALL SIGN GROUP:

Group	Extra	Advan.	General	Technic.	Novice	Total
A	35231	683	249	7	0	36170
B	3899	28818	54	6	1	32778
C	14226	43979	67473	88463	48	214189
D	8328	36716	57923	109668	99920	312555
Other	246	117	106	62	2	533
Total	**61930**	**110313**	**125805**	**198206**	**99971**	**596225**

[Group "A"=2X1 & 2X2; "B"=2X2; "C"=1X3 "D"=2X3 format.]

[Source: FCC Licensing Facility, Gettysburg, PA]

70-cm WIND PROFILER RADAR NPRM AND NOI

As mentioned in our last newsletter, the FCC issued a press release last month stating that they would be allocating 449 MHz to **wind profiler radar systems.** We have now received the complete text (15 pages long) of that *Notice of Proposed Rule Making* and *Notice of Inquiry*. Here is a quick rundown on what it says.

Allocation of 449 MHz for wind profilers "...will facilitate the automated collection of weather information, including data on severe storms that threaten life and property that is not obtainable in any other manner." Frequencies between 200 and 500 MHz offer a compromise between the higher altitude data capability of lower frequencies (around 50 MHz) and the finer resolution of wind profilers operating in the vicinity of 1000 MHz. Because wind profilers detect continuous low-level signals, they must operate in relatively interference-free locations.

Experimental wind profilers have been operating at 404.37 MHz but interfere with satellites at 406 MHz. A *National Telecommunication and Information Administration* study concluded that 449 MHz contained the fewest number of Government users and would be the best potential location for wind profilers. The NTIA is the White House advisor on telecommunications matters. Experimental wind profilers licensees have been notified that they must move to 449 MHz by September 30, 1993.

The FCC said it agreed with NTIA "...that it is important to provide spectrum for wind profilers. These systems are of great value in providing accurate data to assist in predicting and determining weather conditions." Government wind profiler radar systems are to be allocated 448-450 MHz on a primary basis.

NTIA's study concluded that a separation of 30 to 50 km (20 to 30 miles) would be needed to preclude co-channel interference by amateur operations to wind profilers. "The study, however, also found that potential interference between amateur and wind profiler operations may be alleviated by using RF screens, such as perimeter fences or beams, at the profiler site and by altering repeater antenna radiation patterns. We request comment on whether these methods could be used to prevent or resolve interference on a case-by-case basis, or whether we should specify a zone around each wind profiler within which amateur operations on 448-460 MHz would be precluded or otherwise limited, and how such a scheme should be administered." Wind profilers are planned primarily for rural areas where electrical noise is reduced and land is cheaper usually far from 70-cm amateur repeaters.

"We are not proposing to change the secondary allocation to the Amateur Radio Service in the 448-450 MHz band. ...Amateur operations would be required to protect wind profiler operations the same as the other currently protected Government operations. To minimize harmful interference and facilitate coordination, ...we require advance notification of at least 120 days by new wind profiler stations to all existing fixed amateur repeaters listed in the latest ARRL Repeater Directory that operate within 50 km (30 miles) of a proposed site." The FCC asked for comments on this and any other requirements which may be necessary.

The FCC also has asked the public to comment on the use of 915 MHz to accommodate other types of wind profiler radar systems which would be able to detect wind shear conditions. 902-928 MHz is currently allocated to Government radar and to the amateur service on a secondary basis. AVM - Automatic Vehicle Monitoring - also uses the band on a non-interference basis. In addition, this band is designated for industrial, scientific and medical (ISM) equipment and unlicensed devices are permitted on a non-interference basis under Part 15 of the Rules.

The FCC is soliciting comments on all aspects of the need for, and implications of, an allocation of spectrum within the 902-928 MHz band for wind profilers. "We further ask parties to comment on the compatibility of wind profilers with the AVM devices proposed and operating in the same spectrum."

The Commission believes that allocating the 448-450 MHz band will serve domestic needs and also may establish a frequency that could be used internationally." Interested parties may file comments on or before June 15, 1993; replies by July 15, 1993.

Following is the text of the new **U.S. footnote US329** that the FCC proposes to add to its Part 2.106 **Table of Frequency Allocations:**

US329 Wind profiler radars are authorized to operate on a primary basis in the radiolocation service in the frequency band 448-450 MHz with an authorized bandwidth of no more than 2 MHz centered on 449 MHz, subject to the following conditions:

(1) wind profiler locations must be pre-coordinated with the military services to protect fixed military radars;

(2) wind profiler operations will receive no protection from military mobile radiolocation stations;

(3) wind profiler stations will provide protection to military mobile radiolocation stations that are engaged in critical national defense operations, and;

(4) wind profiler stations will provide the maximum reasonable advance notice, but in no case less than 120 days before commencing transmissions, to all existing fixed amateur repeaters listed in the latest ARRL Repeater Directory that operate between 448-450 MHz within 50 km of the proposed wind profiler site.

W5YI REPORT

Nation's Oldest Ham Radio Newsletter

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April 15, 1993

• The ARRL has filed a motion to ***support the FCC in a lawsuit filed by broadcasters*** who seek to overturn the way the FCC enforces indecent broadcast prohibitions through financial penalties. ARRL says that a decision in favor of the broadcasters could harm the FCC's ability to combat indecency on amateur radio frequencies.

In a motion filed in United States District Court for the District of Columbia on March 16, ARRL asked to participate in a suit brought by Action for Children's Television and 20 other broadcasting and public-interest organizations. The broadcasters allege that monetary forfeiture proceedings used by the FCC in indecency cases violate Constitutional due-process and free-speech protections.

Since prompt judicial review of forfeiture orders is not available, the broadcasters say, they must engage in self-censorship. They claim that the FCC has used the process to punish or threaten them in violation of the *Communications Act of 1934.* The broadcasters have asked the Court to prohibit the procedures now used by the FCC to rule on alleged indecency violations under 18 U.S.C. 1464, to enjoin the FCC from initiating or conducting forfeiture proceedings under 47 U.S.C. 503(b) for alleged violations of 18 U.S.C. 1464, and to order the dismissal of all indecency forfeiture proceedings under 47 U.S.C. 503(b) currently pending before the Commission.

"While the relief sought by the plaintiffs specifically concerns the Broadcasting Service, says ARRL President George Wilson, W4OYI, "we're concerned that it might also have the effect of harming FCC efforts to enforce rules in the Amateur Service that have been strongly supported by radio amateurs." ARRL has requested to be permitted either to intervene in support of the FCC or, alternatively, to submit a brief Amicus Curiae in support of the interests of radio amateurs.

• ***K2BSA, the headquarters ham station of the Boy Scouts of America,*** will be getting half of a new 20'x40' building to house the K2BSA ham shack compliments of Metrocel, a cellular communications common carrier. The BSA international headquarters in located at Las Colinas in nearby Irving, Texas.

The station will be located in Camp Wisdom at Dallas, Texas, on land owned by the Circle 10 Council of the Boy Scouts of America.

In exchange for allowing Metrocel to construct a cellular telephone site on one of the hills in Camp Wisdom and occupy half of the building, Metrocel has agreed to construct the Boy Scout communications building and maintain it at Metrocel's expense.

Included in the deal will be a 125-ft high tower to house the K2BSA antennas as well as the Metrocel cellular service antennas. K2BSA ultimately plans to operate all bands from 160 meters through 450-megahertz at the new site which should be completed this summer. Plans are to use the new station during the *Worldwide Jamboree on the Air* (JOTA) which will be held October 16 and 17.

K2BSA also plans to operate portable at the National Jamboree to be held at Fort A.P. Hill in Virginia in early August.

• ***The FCC has suspended its semi-annual testing for Commercial Radio Operator licenses and has established an interim testing procedure.***

Because of budgetary constraints and the Commission's recent decision to privatize the administration of examinations for commercial radio operator licenses, the FCC has suspended its regularly scheduled Commercial Radio Operator testing sessions.

Effective immediately, the FCC will no longer accept applications to take a commercial radio operator exam. All such applications filed after today will be returned.

A special interim procedure has been established for individuals who by Commission Rule, must have a Commercial Radio Operator License for employment. These individuals may file a request with the Engineer-in-Charge (EIC) of one of the FCC's field offices for permission to apply for a special examination.

In order to qualify for this special interim procedure, the individual must have a letter from an employer stating that he or she is already, or will be employed in a particular position where Commission Rules require a license, or present adequate evidence of self employment in a position where Commission Rules require a Commercial Radio Operator License. If qualified, the individual will be notified on the proper steps to take and the field office will administer and grade the special examination.

Approximately 1800 applications had been filed to take these examinations in February. To satisfy these requests and minimize expenditures, the FCC has adopted a one-time interim procedure. The Field Offices will mail out an examination package to those individuals with an instruction sheet and a sealed-examination. The applicant must take the sealed examination to a commercial operator licensee with an equal or higher class license than sought and complete the examination before the licensee. The licensee must sign the certification sheet that the examination was opened and administered in his or her presence without the assistance of study guides or other aids. The licensee must then mail the completed answer and certification sheet and examination back to the FCC within 60 days.

The Commission is in the process of issuing a Public Notice soliciting candidates for commercial operator licensing examination managers (COLEM). It is expected that testing will be available in the private sector within 3 to 4 months.

K6KPS AMATEUR LICENSE SUSPENDED ONE YEAR!

The amateur operator license of ***James L. Brantley, K6KPS*** of Los Angeles, California, has been suspended for one year starting March 21, 1993. The suspension was in settlement of a forfeiture against Brantley for alleged malicious interference and broadcasting violations on the amateur 20-meter ham band. A "forfeiture" is a civil fine issued by the FCC.

On June 3, 1992, Brantley was issued a *Notice of Apparent Liability* (an NAL is the official FCC notification that it intends to impose an FCC administrative fine) in the amount of $7,000 for violating Section §97.101(d) of the FCC rules which prohibits an amateur operator from willfully or maliciously interfering with any radio communication or signal. An additional $1,000 was imposed for "transmitting communications in order to engage in any form of broadcasting..." - a total of $8,000.

The total amount of the fine was based on the FCC's August 1, 1991, *Policy Statement* which provides "*Standards for Assessing Forfeitures.*" Ordinarily the "broadcasting" infraction (classified as a "miscellaneous violation") carries a $500 "forfeiture" amount. The Commission adjusted this figure upward to $1,000, however, due to the "egregious (flagrant) misconduct" and the fact that Brantley had been previously charged on October 2, 1985 (and an NAL issued) for the same violation.

Background

The FCC made these determinations based on Brantley's K6KPS operation on July 28, 1991, when he allegedly broadcast a series of "CQ" calls and other calls which the FCC said were not actually intended to establish communications.

"These one way transmissions were apparently intended to cause, and apparently did cause, interference to the communications of other amateur stations," FCC said. The Commission's Livermore, California, monitoring station obtained a transcription of the CQ calls by listening to the K6KPS transmissions from a FCC mobile unit located near the Brantley residence ...and from the complaints of other amateur operators.

Brantley responded twice to the NAL and submitted a tape recording - which the FCC did not find persuasive at all. The tape recordings showed that K6KPS repeatedly transmitting over on-going communications even though he contended that he was on the frequency first.

He said he got on the air "...to make contact, not to cause malicious interference or broadcasting" and that it was he who was subjected to racial slurs and malicious interference. The FCC noted that Brantley's receiver could be heard in the background and that it appears he may not have been transmitting over the air when the tape was made. The Commission added that intentional interference is never an appropriate response no matter the circumstances.

The K6KPS "CQ" calls continued for about 30 minutes. The FCC said the unreasonable length of these transmissions "...is evident that your CQ calls were intended to cause interference rather than to establish communications." Furthermore, Brantley did not respond to any stations who answered his general CQ call - which gave credibility to the opinion that K6KPS never wanted to talk to anyone that answered his call in the first place.

Four other persons also supplied written statements that amateur communications were already in progress on the frequency when Brantley started transmitting on 14.303 MHz at approximately 12:09 p.m. on July 28, 1991.

FCC issues the $8,000 fine

The *Notice of Apparently Liability* was changed to a *Notice of Forfeiture* last November and Brantley was ordered to remit $8,000 by December 13, 1992. The FCC then offered K6KPS an unusual alternative.

"As an alternative, you are hereby offered the opportunity to substitute a period of voluntary license suspension for all or part of the monetary forfeiture. Specifically, we are offering to substitute 3 months of operator license suspension for each $2,000 of your monetary forfeiture. For example, a suspension of one year would substitute for the entire forfeiture liability."

The 30 day period during which Brantley could have contested the fine by filing a *Petition for Reconsideration* passed without a response. A letter was received by the FCC from K6KPS on January 14, 1993, but it offered no additional information. The Commission reiterated their offer to accept suspension of Brantley's operator license as payment of the forfeiture.

On February 19, 1993, Brantley agreed to a suspension of his Advanced Class amateur operator license for one year and was ordered to forward his ticket to the FCC in Washington, DC. It will be returned to him on March 20, 1994, and the $8,000 administrative fine canceled providing that he fully complies with the terms of the suspension.

[Editor's note: We tried to telephone James L. Brantley, K6KPS, in Los Angeles last week to get his side of the story, but the information operator said there was no telephone listing for a "James L." The only "J. Brantley" listed in Los Angeles said he was not a ham operator - nor did he know James L. Brantley.]